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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,840	10/07/2003	David B. Riffer	17155-03 USA	5411

7590

08/24/2005

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EXAMINER

DANIELS, MATTHEW J

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/680,840

Applicant(s)

RIFFER, DAVID B.

Examiner

Matthew J. Daniels

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/7/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. **Claims 1, 5, 8-10, 12-14, 21-23** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 6-11, 16, 14, and 15 of U.S. Patent No. 6696123. Although the conflicting claims are not identical, they are not patentably distinct from each other because the "layers" claimed in the instant application are considered to be a "blend" (See 6696123, 8:42). In the interpretation of the Examiner, the "layers" that are claimed in the instant claims still constitute a blend, and thus the subject matter of the '123 patent reads on the instant application. Although Claim 1 of the '123 patent is silent to the compatibilizer, this aspect is subsequently claimed in Claim 2 of that patent. Thus, the subject matter of the patent would render the instant claims obvious. Additionally, the following are rejected because they are substantially duplicates, and are therefore also obvious for the same reasons cited above:

Art Unit: 1732

- a) the subject matter of Claim 5 is also obvious over Claim 4 of the patent
- b) the subject matter of Claim 8 is also obvious over Claim 6 of the patent
- c) the subject matter of Claim 9 is also obvious over Claim 7 of the patent
- d) the subject matter of Claim 10 is also obvious over Claim 8 of the patent
- e) the subject matter of Claim 12 is also obvious over Claim 9 of the patent
- f) the subject matter of Claim 13 is also obvious over Claim 10 of the patent
- g) the subject matter of Claim 14 is also obvious over Claim 11 of the patent
- h) the subject matter of Claim 21 is also obvious over Claim 16 of the patent
- i) the subject matter of Claims 22 and 23 is also obvious over Claim 14 and 15 of the patent

2. **Claims 24-28, 30 and 31** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 17, 18, 20-23, and 29 of U.S. Patent No. 6696123. Although the conflicting claims are not identical, they are not patentably distinct from each other because the “continuous layers” claimed in the instant application is considered to be a “blend.” In the interpretation of the Examiner, the “layers” are deemed to be a blend, and thus the subject matter of the ‘123 patent reads on the instant application. This appears to be the only difference between the claims. Additionally, the following are rejected because they are substantially duplicates, and are therefore also obvious for the same reasons cited above:

- a) the subject matter of Claim 25 is also obvious over Claim 18 of the patent
- b) the subject matter of Claim 26 is also obvious over Claim 20 of the patent
- c) the subject matter of Claim 27 is also obvious over Claim 21 of the patent

Art Unit: 1732

- d) the subject matter of Claim 28 is also obvious over Claim 22 of the patent
- e) the subject matter of Claim 30 is also obvious over Claim 23 of the patent
- f) the subject matter of Claim 31 is also obvious over Claim 29 of the patent

3. **Claims 30, 40-42, 44-46** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 30 of U.S. Patent No. 6696123. Although the conflicting claims are not identical, they are not patentably distinct from each other because extruding is an obvious method for forming a pellet, and the compression molding claimed in both the patent and the application would have obviously caused formation of "platelets" as in the '123 patent by elongation of the barrier polymer. Additionally, the following are rejected because they are substantially duplicates, and are therefore also obvious for the same reasons cited above:

- a) the subject matter of Claim 50 is also obvious over Claim 31 of the patent
- b) the subject matter of Claim 40 is also obvious over Claim 34 of the patent
- c) the subject matter of Claim 41 is also obvious over Claim 35 of the patent
- d) the subject matter of Claim 42 is also obvious over Claim 36 of the patent
- e) the subject matter of Claim 44 is also obvious over Claim 37 of the patent
- f) the subject matter of Claim 45 is also obvious over Claim 38 of the patent
- g) the subject matter of Claim 46 is also obvious over Claim 39 of the patent

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1732

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 8, 12, 13, 14, 21, 25, 27, 28, 30, 31, 40, 44, 45, 46, 53** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims use the either the phrase "mixtures thereof" or "blends thereof." These phrases fail to distinctly point out what compounds are being used in each case.

5. **Claim 26** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case, Claim 26 is dependent upon itself, and is therefore indefinite. For examination, it has been assumed to depend on Claim 24.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-9, 13-14, 16, and 20-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) as evidenced by Hundt (USPN 3147874). **As to Claim 1**, Mori teaches the following:

a) providing a plastic cap that includes a base and peripheral skirt defining a cap interior (Fig. 4, Item 1)

Art Unit: 1732

b) placing within the cap interior, on the base, a mold charge that includes a matrix polymer (6:11-31)

c) compression molding the mold charge in situ within the cap interior against the base to form a liner on the base having layers of barrier polymer alternating with layers of matrix polymer material (this aspect is inherent because multiple layers would have been formed by the compression molding, 9:34-39)

Mori appears to be silent to the layers of barrier polymer and compatibilizer. Hundt provides evidence that multilayer barriers, fabricated by extrusion (5:30-31 and 3:45-48), were well known in the art in order to prevent gas leakage (1:14-23). Additionally, Mehra teaches layers of barrier and matrix (3:30-46) resisting transmission of gas and water vapor (inherent in Mehra's method), in addition to a compatibilizer material comprising a thermoplastic resin for tying the matrix polymer material to the barrier polymer by reactive bonds or non-reactive adhesion mechanisms (4:23-51). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Mehra into that of Mori in view of Hundt's teaching that it was known and desirable to provide multilayer crown closures that are impervious to gas leakage (1:14-23 and 1:43-50). **As to Claims 2 and 3**, in the combined method, the layers would have had a predetermined horizontal elongation and orientation, but random orientation within the plane of the cap. **As to Claim 4**, Mehra teaches extruding a mold charge having layers therein (7:50-60) and severed (3:14-29) and Mori teaches a pellet or a disc (7:60-64), which would have obviously been made by severing. **As to Claim 5**, Mehra teaches compatibilizer material disposed in the barrier polymer material layers (4:23-27). **As to Claims 6 and 7**, Mehra's mixture consists essentially of the matrix, barrier, and compatibilizer (columns

Art Unit: 1732

1 and 2), however, Mori also teaches clay as a known additive (7:57), and smectic clay would have been obvious in view of Mori's teaching. **As to Claim 8**, Mehra teaches the claimed subject matter (3:30-33). **As to Claim 9**, because Mehra teaches the claimed polymer(s), it is the Examiner's position that the claimed properties of the matrix are inherent in Mehra's method. However, Hundt also provides evidence that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 13**, Mehra teaches at least EVOH (3:34-38 and 3:64-4:22). **As to Claim 14**, Mehra teaches at least maleic anhydride grafted polymers (5:62-67). **As to Claim 16**, in view of Mehra's teaching to blend the compatibilizer with the barrier resin (4:23-27), it would have also been prima facie obvious to blend the barrier resin with the matrix polymer instead. Mehra also appears to teach blending the compatibilizer with the matrix resin (9:18-28). **As to Claim 20**, because Mehra teaches the claimed polymer(s), it is the Examiner's position that the claimed properties of the matrix are inherent in Mehra's method. However, Hundt also provides evidence that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 21**, Mori teaches at least fatty acid ester lubricants (7:17). **As to Claims 22 and 23**, see Mori (7:49-52).

7. **Claims 10-12 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), and further in view of White (USPN 5211974). Mori and Mehra teach the subject matter of Claims 1 and 8. See the rejections of Claims 1 and 8 under 35 USC 103(a). **As to Claim 10**, White teaches styrene block copolymers (4:63-5:15) in order to provide a blend that gives the surprising combination of good sealing properties and impermeability (4:55-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of White into that of Mori and Mehra in order to provide the same combination of good sealing and impermeability. **As to Claim 11**, Hundt (USPN 3147874) is cited as evidence only to show that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 12**, White teaches ethylene copolymers (4:64). **As to Claim 15**, Mehra teaches EVOH as a common barrier (3:34-40), and White teaches EVA as a common matrix (2:19-32).

8. **Claims 17-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), as evidenced by Schrenk (USPN 5380479). Mori and Mehra teach the subject matter of Claim 1. See the rejection of Claim 1 under 35 USC 103(a). **As to Claims 17-19**, Mehra teaches laminar articles of barrier polymer

Art Unit: 1732

with matrix polymer (column 3), but appears to be silent to the claimed number of layers.

However, Schrenk provides evidence that the ordinary artisan understands that “it is generally true that all other things being equal, the larger the number of layers across a cross section of the wall of an article, the greater the improvement in those properties which are enhanced by a lamellar construction, so long as the layers are substantially co-continuous across the cross-section of the article.” (12:34-39). Schrenk therefore appears to provide evidence that the ordinary artisan understands that the number of layers is a result-effective variable. See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, it would have been prima facie obvious to optimize the number of layers in order to improve the barrier properties provided by those layers.

9. **Claims 24, 25, and 28-31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) and Schrenk (USPN 5380479) as evidenced by Hundt (USPN 3147874). **As to Claim 24**, Mori teaches:

- c) providing a plastic cap including a base and a peripheral skirt defining an interior (Fig. 4, Item 1)
- d) placing a mold charge pellet within the cap (6:11-31)
- e) compression molding the mold charge pellet in situ within the cap (9:34-39)

Mori appears to be silent to steps a, b, and the continuous layers of barrier polymer material.

Hundt provides evidence that multilayer barriers, fabricated by extrusion (5:30-31 and 3:45-48), were well known in the art in order to prevent gas leakage (1:14-23). However, the following aspects were also well known in the art for the following reasons:

Art Unit: 1732

Schrenk teaches:

a) extruding plastic mold charge material that consists essentially of:

1) continuous (5:10) layers of barrier polymer material to resist gas transmission, totaling at least nine alternating layers (18:59-60).

2) compatibilizer material comprising thermoplastic resin, the compatibilizer being disposed in the matrix polymer or barrier polymer layers, or in separate layers between the matrix and barrier (15:65-16:11).

Mehra teaches:

b) severing a mold charge pellet from the mold charge material extruded (See Mehra 7:50-60 and 3:14-29)

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Schrenk and Mehra into that of Mori in view of Hundt's teaching that it was known and desirable to provide multilayer crown closures that are impervious to gas leakage (1:14-23 and 1:43-50), and because doing so would improve the barrier properties of the multilayer (Schrenk 12:34-39). **As to Claim 25**, Mehra teaches the claimed subject matter (3:30-33). **As to Claim 28**, Mehra teaches at least EVOH (3:34-38 and 3:64-4:22). **As to Claim 29**, Mori teaches clay as a known additive (7:57), and smectic clay would have been obvious in view of Mori's teaching. Schrenk additionally teaches mica (18:17-36), and clay would have been an obvious alternative. **As to Claim 30**, Mehra teaches at least maleic anhydride grafted polymers (5:62-67). **As to Claim 31**, Mori teaches at least fatty acid ester lubricants (7:17).

Art Unit: 1732

10. **Claims 26 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) and Schrenk (USPN 5380479) and further in view of White (USPN 5211974). Mori, Schrenk, and Mehra teach the subject matter of Claims 24 and 25. See the rejections of Claims 24 and 25 under 35 USC 103(a). **As to Claim 26**, White teaches styrene block copolymers (4:63-5:15) in order to provide a blend that gives the surprising combination of good sealing properties and impermeability (4:55-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of White into that of Mori and Mehra in order to provide the same combination of good sealing and impermeability. **As to Claim 27**, White teaches ethylene copolymers (4:64).

11. **Claims 32, 33, 35, 36, 39-41, 43, 45, 46, 50-55** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) as evidenced by Hundt (USPN 3147874). **As to Claim 32**, Mori teaches compression molding a pellet to form a liner disk (7:62), but appears to be silent to the other claimed limitations. However, Mehra teaches:

- a) extruding a pellet that consists essentially of a multiplicity of alternating layers of matrix polymer material and barrier polymer material (3:14-30)
- b) orienting of the layers parallel would be obvious in the combined method in order to capitalize on the barrier properties.

Hundt provides evidence that multilayer barriers, fabricated by extrusion (5:30-31 and 3:45-48), were well known in the art in order to prevent gas leakage (1:14-23). It would have been prima

Art Unit: 1732

facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Mehra into that of Mori in view of Hundt's teaching that it was known and desirable to provide multilayer crown closures that are impervious to gas leakage (1:14-23 and 1:43-50). **As to Claim 33**, Mehra's teaches that the barrier can include compatibilizers (4:23-27), and in view of these teachings, it would have been prima facie obvious to incorporate compatibilizers in the matrix also. **As to Claims 35 and 36**, Mehra teaches this aspect (4:23-67). **As to Claim 39**, Mehra teaches this aspect of the invention (8:32-45). **As to Claim 40**, Mehra teaches the claimed subject matter (3:30-33). **As to Claims 41 and 43**, because Mehra teaches the claimed polymer(s), it is the Examiner's position that the claimed properties of the matrix are inherent in Mehra's method. However, Hundt also provides evidence that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 45**, Mehra teaches EVOH as a common barrier (3:34-40). **As to Claim 46**, Mehra teaches at least maleic anhydride grafted polymers (5:62-67). **As to Claim 50**, Mori teaches c) providing a closure cap having a base and a peripheral skirt defining a cap interior and means for securing the cap to the container (Figs. 4, 5, and 6) and d) securing the inner liner to the interior of the base (Figs. 2, 3, and 4). **As to Claim 51**, in the combined method, this limitation would have been inherent or obvious in order to provide maximum barrier protection. **As to Claim 52**, Hundt (USPN 3147874) is cited as evidence only to show that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-

Art Unit: 1732

4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. As to **Claim 53**, Mori teaches at least fatty acid ester lubricants (7:17). As to **Claims 54 and 55**, see Mori (7:49-52).

12. **Claims 34, 37, and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), and further in view of Schrenk (USPN 5380479). Mori and Mehra teach the subject matter of Claims 32 and 35. As to **Claim 34**, Schrenk teaches that “materials having viscosities that differ by no greater than a factor of five can be appropriately used together in the present invention...” (15:60-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to select components, including the compatibilizer, to have viscosity differences no greater than a factor of five. As to **Claims 37 and 38**, Schrenk teaches these aspects (16:3-21).

13. **Claims 42 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), and further in view of White (USPN 5211974). Mori and Mehra teach the subject matter of Claims 40 and 43. See the rejections of Claims 40 and 43 under 35 USC 103(a). As to **Claim 42**, White teaches styrene block copolymers (4:63-5:15) in order to provide a blend that gives the surprising combination of good sealing properties and impermeability (4:55-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of White into

that of Mori and Mehra in order to provide the same combination of good sealing and impermeability. **As to Claim 44**, White teaches ethylene copolymers (4:64).

14. **Claims 47-49** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), as evidenced by Schrenk (USPN 5380479). Mori and Mehra teach the subject matter of Claim 32. See the rejection of Claim 32 under 35 USC 103(a). **As to Claims 47-49**, Mehra teaches laminar articles of barrier polymer with matrix polymer (column 3), but appears to be silent to the claimed number of layers. However, Schrenk provides evidence that the ordinary artisan understands that “it is generally true that all other things being equal, the larger the number of layers across a cross section of the wall of an article, the greater the improvement in those properties which are enhanced by a lamellar construction, so long as the layers are substantially co-continuous across the cross-section of the article.” (12:34-39). Schrenk therefore appears to provide evidence that the ordinary artisan understands that the number of layers is a result-effective variable. See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, it would have been prima facie obvious to optimize the number of layers of Mehra in order to improve the barrier properties provided by those layers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Thursday, 7:30 am - 5:30 pm.

Art Unit: 1732

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 8/18/05

MJD



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER